

Detailed System Design

Version/ Review Date	Brief Summary of Changes From Prior Version
Version 1.0 9/18/03	<ul style="list-style-type: none">▪ Original to Departments
Version 2.0 10/28/03	<ul style="list-style-type: none">▪ Received updated file layout and sample XML from design team and made changes to outbound status return to reflect new specifications: Added batch level information▪ Added data element DOC_VERS_NO▪ Removed DOC_FUNC_NM, DOC_PHASE_NM, DOC_STA_NM▪ XML format changed to reflect new specifications
Version 3.0 02/24/2004	<ul style="list-style-type: none">▪ Changes are Highlighted in BLUE▪ IMP_DT was in the wrong format in the sample XML▪ Attribute TABLE_KEY changed to RECORD_KEY▪ Added Status of "Submitted" to DOC_STA_CD▪ DOC_FUNC_CD, DOC_PHASE_CD and DOC_STA_CD contents in the XML were changed▪ Attribute NO_OF_ERROR was changed to NO_OF_ERRORS
Version 3.1 03/25/04	<ul style="list-style-type: none">• Removed "Attribute=Y" from XML examples as it will not be included in the status return file.
Version 3.2 04/16/04	<ul style="list-style-type: none">▪ Changes Highlighted in Red in Section 2.1.2 and Section 2.1.3▪ For DOC_FUNC_CD, DOC_PHASE_CD, DOC_STA_CD changed Type to VarChar2▪ Reworded Error Elements/Attributes to accurately reflect how they are sent in the XML file

DDCT16 - Outbound Status Return Interface

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1. Overview

1.1. Document Definitions and Naming Conventions

Transaction Layout Definitions

- Attribute – The name of the data element in the database, as well as the name of the XML tag.
- Caption – The label on the User Interface that defines the data element.
- Description – A textual description of the data element.
- Type – The data type of the data element.
 - VarChar2 – Variable Character text. Alphanumeric data.
 - Byte – Unsigned character.
 - Char – Character. Fixed length alphanumeric text, required to meet the exact specified size.
 - Date – Date Format YYYY-MM-DD
 - Decimal – Numeric value with a specified decimal position (9,3) = 999999999.999
 - Boolean – True/False. True conditions = "true", False conditions = "false".
 - Memo – Alphanumeric Text with a maximum of 1500 characters.
 - Currency – Numeric, with two decimal positions. Format 9999.99.
 - Integer – Numeric value, whole number.
 - Long – Numeric value, a long whole number.
- Size – The (numeric) size of the data element.
- NewMMARS Notes – Notes specific to the NewMMARS data element.

XML Definitions and Conventions

- **Root** - The NewMMARS XML file and document root declaration identifies required root elements that must exist for the XML file or document (transaction) to load into NewMMARS. The NewMMARS XML file must contain a single root element that contains specified attributes, at the file level. Each document transaction contained within the XML file must also contain a root element that contains the specified attributes, at the document level. This structure is retained within the returned file for consistency.
- **Attributes** - Attributes are name-value pairs that occur inside start-tags after the element name.
- **Elements** - Elements are the most common form of markup. Delimited by angle brackets, most elements identify the nature of the content they surround. Elements normally begins with a start-tag, <element>, and ends with an end-tag, </element>.
- **CDATA Tags** - In a document, CDATA instructs the parser to ignore (most) markup characters. Between the start of the section, <![CDATA[and the end of the section,]>, all character data is passed directly to the application, without interpretation. Elements, entity references, comments, and processing instructions are all unrecognized and the characters that comprise them are passed "literally" to the application.

1.2. Interface Usage

For interface partners that send transactions to NewMMARS, a return status file will be generated and sent back to the interface partners via CommBridge. The return status file is a mechanism to communicate back to interface partners the status of each transaction so that they are aware of what transactions were successfully loaded, as well as, those transactions that fail to load to NewMMARS. A status return file will be generated for each interface sent to NewMMARS for processing. For all documents loaded to the document catalog, the status information will be retrieved and sent back to interface partners. If the documents fail to load, the corresponding error codes and error messages will be retrieved and sent back in the same return file. There will be one record per document in the status return file reporting back to departments the status of the documents being interfaced. For each table record being interfaced, a status return record will also be generated and sent back to departments.

2.Publishable Specifications

2.1.1 Status Return Data Elements

Note: The following elements will be provided on the Status Return File; fields specific to documents will not be included in the Table Status Return XML file and fields specific to tables will not be included in the Document Status Return XML file. Refer to sample XML for clarification in Section 2.1.4 / Section 2.1.5.

2.1.2 AMS_DOCUMENT elements (layout for documents)

Attribute	Caption	Description	Type	Size	NewMMARS Notes
BATCH_ID	Batch ID	The unique Batch ID that was assigned to the interface file by the department.	Varchar2	12	From the .INF file; will be repeated for each document in the batch.
DEPT_CD	Department Code	The Department Code as it was provided on the interface file.	Varchar2	4	From the .INF file; will be repeated for each document in the batch.
UNIT_CD	Unit Code	The Unit Code as it was provided on the interface file.	Varchar2	4	From the .INF file; will be repeated for each document in the batch.
TRAN_CD	Transaction	For Documents, the document transaction code for the interface file.	Varchar2	8	From the .INF file; will be repeated for each document in the batch.
IMP_DT	Import Date	The date the interface file was imported into the NewMMARS system.	Date		From the .INF file; will be repeated for each document in the batch.

Elements/Attributes	Caption	Description	Type	Size	NewMMARS Notes
DOC_CD	Document Code	The alpha-numeric identification code assigned to the document on the Document Control table. Each document code must be unique within the application. The document code is a required field when creating a new document. It also may be a selection criteria on a parameter table, a key to a specific business rule on a control table, or the document code recorded on a historical record.	VarChar2	8	As supplied by originating department.
DOC_DEPT_CD	Department Code	The department code assigned to this document.	VarChar2	4	As supplied by originating department.
DOC_UNIT_CD	Unit Code	The unit code associated with this document.	VarChar2	4	As supplied by originating department.
DOC_ID	Document Id	The document code and number that is either manually assigned or automatically generated by the system if you do not enter this information. The version number is assigned automatically. Duplicate document identification numbers are not allowed in the system.	VarCha2	20	As supplied by originating department.
DOC_VERS_NO	Document Version	The version number assigned to this document. The version is incremented with each modification draft and after with a cancellation.	Integer		As extracted from the document catalog.
DOC_FUNC_CD	Function Code	The function code associated with the document.	VarChar2		As extracted from the document catalog, Valid values are 1 - New 2 - Modification 3 - Cancellation Note: XML will contain numeric value and text.
DOC_PHASE_CD	Phase Code	The phase code associated with the document.	VarChar2		As extracted from the document catalog, Valid values are: 0 - No Phase 1 - Draft 2 - Pending 3 - Final 5 - Historical (Final) 6 - Conflict Draft 7 - Template Note: XML will contain numeric value and text.

Elements/Attributes	Caption	Description	Type	Size	NewMMARS Notes
DOC_STA_CD	Status Code	The current status of the document.	VarChar2		As extracted from the document catalog, Valid values are: 1 - Held 2 - Ready 3 - Rejected 4 - Submitted Note: XML will contain numeric value and text.
ERRORS	Errors	ERRORS contains all error detail.			
NO_OF_ERRORS	Number of Errors	The number of errors. (This is an attribute of ERRORS)	1	Number	Up to 3 errors will be provided.
ERROR	Error	ERROR contains the error code and text error message.	VarChar2	254	Up to 3 error messages and error codes will be provided.
ERROR_CD	Error Code	This is an attribute of ERROR. It represents the code associated with the long error description in ERROR.	VarChar2	5	

2.1.3 AMS_RECORD elements (layout for table records)

Attribute	Caption	Description	Type	Size	NewMMARS Notes
BATCH_ID	Batch ID	The unique Batch ID that was assigned to the interface file by the department.	Varchar2	12	From the .INF file; will be repeated for each table record in the batch.
DEPT_CD	Department Code	The Department Code as it was provided on the interface file.	Varchar2	4	From the .INF file; will be repeated for each table record in the batch.
UNIT_CD	Unit Code	The Unit Code as it was provided on the interface file.	Varchar2	4	From the .INF file; will be repeated for each table record in the batch.
TABLE_NM	Table Name	For Tables, the name of the table being interfaced.	Varchar2	18	From the .INF file; will be repeated for each table record in the batch.
IMP_DT	Import Date	The date the interface file was imported into the NewMMARS system.	Date		From the .INF file; will be repeated for each table record in the batch.

Element/Attributes	Caption	Description	Type	Size	NewMMARS Notes
RECORD_KEY	Record Key	The key to the table that was interfaced by the department.	Memo		
ERRORS	Errors	ERRORS contains all error detail.			
NO_OF_ERRORS	Number of Errors	The number of errors. (This is an attribute of ERRORS)	1	Number	Up to 3 errors will be provided.
ERROR	Error	ERROR contains the error code and text error message.	VarChar2	254	Up to 3 error messages and error codes will be provided.

Element/Attributes	Caption	Description	Type	Size	NewMMARS Notes
ERROR_CD	Error Code	This is an attribute of ERROR. It represents the code associated with the long error description in ERROR.	VarChar2	5	

2.1.4 Example 1 – XML layout for Document Status Return File

This sample XML represents an interface file for a specific department/transaction code.

```

<?xml version="1.0" ?>
<AMS_IC_STATUS>

  <AMS_DOCUMENT BATCH_ID="ABC1028PRC1" DEPT_CD="ABC" UNIT_CD="1000" TRAN_CD="PRC" IMP_DT="2003-07-30">
    <DOC_CD><![CDATA[FI]]></DOC_CD>
    <DOC_DEPT_CD><![CDATA[ABC]]></DOC_DEPT_CD>
    <DOC_UNIT_CD><![CDATA[1000]]></DOC_UNIT_CD>
    <DOC_ID><![CDATA[INTF0000000100000014]]></DOC_ID>
    <DOC_VERS_NO><![CDATA[1]]></DOC_VERS_NO>
    <DOC_FUNC_CD><![CDATA[1 - New]]></DOC_FUNC_CD>
    <DOC_PHASE_CD><![CDATA[ 1 - Draft]]></DOC_PHASE_CD>
    <DOC_STA_CD><![CDATA[1 - Held]]></DOC_STA_CD>
    <ERRORS NO_OF_ERRORS="2">
      <ERROR ERROR_CD="A100"><![CDATA[Error abcd...]]></ERROR>
      <ERROR ERROR_CD=""><![CDATA[The document could not be submitted due to errors]]></ERROR>
    </ERRORS>
  </AMS_DOCUMENT>

  <AMS_DOCUMENT BATCH_ID="ABC1028PRC1" DEPT_CD="ABC" UNIT_CD="1000" TRAN_CD="PRC" IMP_DT="2003-07-30">
    <DOC_CD><![CDATA[FI]]></DOC_CD>
    <DOC_DEPT_CD><![CDATA[ABC]]></DOC_DEPT_CD>
    <DOC_UNIT_CD><![CDATA[1000]]></DOC_UNIT_CD>
    <DOC_ID><![CDATA[INTF0000000100000015]]></DOC_ID>
    <DOC_VERS_NO><![CDATA[1]]></DOC_VERS_NO>
  </AMS_DOCUMENT>

```

```

    <DOC_FUNC_CD><![CDATA[1 - New]]></DOC_FUNC_CD>
    <DOC_PHASE_CD><![CDATA[1 - Draft]]></DOC_PHASE_CD>
    <DOC_STA_CD><![CDATA[1 - Held]]></DOC_STA_CD>
    <ERRORS NO_OF_ERRORS=0">
    </ERRORS>
  </AMS_DOCUMENT>

</AMS_IC_STATUS>

```

2.1.5 Example 2 – XML layout for Table Status Return File

This sample XML represents an interface file for a specific department/table transaction.

```

<?xml version="1.0" ?>
<AMS_IC_STATUS>

  <AMS_RECORD BATCH_ID="ABC1028INTR1 " DEPT_CD="ABC" UNIT_CD="1000" TABLE_NM="R_MJR_PROG" IMP_DT="2003-07-30">
    <RECORD_KEY PrimaryKey="DEPT_CD,MJR_PROG_CD"><![CDATA[111,MP1]]></RECORD_KEY>
    <ERRORS NO_OF_ERRORS=1">
      <ERROR ERROR_CD="A100"><![CDATA[Department is InActive..]]></ERROR>
    </ERRORS>
  </AMS_RECORD>

  <AMS_RECORD BATCH_ID="ABC1028INTR1" DEPT_CD="ABC" UNIT_CD="1000" TABLE_NM="R_MJR_PROG" IMP_DT="2003-07-30">
    <RECORD_KEY PrimaryKey="DEPT_CD,MJR_PROG_CD"><![CDATA[ABC,MP1]]></RECORD_KEY>
    <ERRORS NO_OF_ERRORS=0">
    </ERRORS>
  </AMS_RECORD>

</AMS_IC_STATUS>

```